

**COUNTY OF SACRAMENTO  
CALIFORNIA**

For the Agenda of:  
May 24, 2017  
Timed: 3:00 p.m.

To: Board of Supervisors

From: Office of Planning and Environmental Review

Subject: PLNP2016-00063. Climate Action Plan – Communitywide Greenhouse Gas Reduction and Climate Change Adaptation. Workshop

Supervisory District(s): All

Contact: Surinder Singh, Principal Planner, (916) 874-5462

**Overview**

County staff will provide an overview of efforts to complete the last phase of the County’s multi-phased Climate Action Plan. The *Climate Action Plan: Communitywide Greenhouse Gas Reduction and Climate Change Adaptation* (Communitywide CAP) project will update greenhouse gas reduction measures for government operations and propose new measures for the entire unincorporated County. The Communitywide CAP will also propose measures to help the County adapt to the effects of climate change.

**Recommendation**

Provide feedback to staff regarding the direction of the Communitywide Climate Action Plan.

**Measures/Evaluation**

Work on the Communitywide CAP is pursuant to the 2030 Sacramento County General Plan. The work is guided by several State laws, plans, and court rulings. A primary benefit for completing the Communitywide CAP will be the streamlining of CEQA analysis for new projects.

**Fiscal Impact**

Staff is working with a consultant to prepare the Communitywide CAP document and conduct public outreach. Staff costs are estimated to be \$431,300 and the consultant’s work is estimated to cost \$267,060, over a period of two years. Most of the work performed by both staff and the consultant is funded by Long Range Planning fees. Approximately \$67,000 of consultant work in FY2016-17 is Net County Cost. Both staff and consultant costs have been included in the Fiscal Year 2016-17 Adopted Budget, and will be included in the Fiscal Year 2017-18 Recommended Budget. As of April 14, 2017, the County has spent \$366,040 on this project.

**BACKGROUND**

On November 9, 2011 the Board of Supervisors adopted the 2030 Sacramento County General Plan and certified the Final Environmental Impact Report (FEIR). The Land Use Element of the

General Plan discusses the County's multi-phase Climate Action Plan, and includes several implementation measures directing the County to adopt a first- and second-phase Climate Action Plan. These implementation measures were required to be included in the General Plan as mitigation for climate change impacts pursuant to the FEIR.

Also on November 9, 2011, the Board of Supervisors adopted the first phase of the County's Climate Action Plan, the *Climate Action Plan – Strategy and Framework Document*. The Strategy and Framework Document laid the foundation for the second-phases which would follow, including: 1) government operations, and 2) communitywide. It summarized the actions the County had taken, was taking, or could take in the future. However, it did not translate those actions into actionable, quantifiable measures to reduce greenhouse gas (GHG) emissions and/or adapt to climate change.

On September 11, 2012 the Board of Supervisors adopted the Climate Action Plan – Government Operations (Government Operations CAP). The Government Operation CAP described measures the County was taking or would take to reduce GHG emissions from its operations (i.e County-owned facilities, vehicles, and equipment), while saving energy and money, and providing a number of other benefits. It identified a Preferred Action Plan with 27 completed measures and 25 future measures to achieve a 15-percent reduction in GHG emissions with the least capital cost.

### State

The State of California has passed legislation, and governors have provided executive orders which require California to meet the following GHG reduction targets for 2020, 2030 and 2050:

- 1990 levels by the year 2020 (Assembly Bill 32)
- 40 percent below 1990 levels by 2030 (Senate Bill 32)
- 80 percent below 1990 levels by 2050 (Executive Order S-3-05)

The California Air Resources Board (ARB) prepared a Climate Change Scoping Plan in 2008, and updated it in 2014, to find an approach for the State to achieve its GHG emissions reduction targets. Both versions of the Scoping Plan indicate that there is a need for local governments to adopt reduction targets that are consistent with statewide goals.

The California State Supreme Court has indicated support for the creation of GHG emission reduction plans (i.e. climate action plans). On November 30, 2015, the California Supreme Court published an opinion on the *Center for Biological Diversity, et al. v. California Department of Fish and Wildlife* (Newhall Ranch case), a portion of which indicated that the burden of a GHG analysis can be relieved by using geographically-specific GHG emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis.

In response to the Court's opinion, the Sacramento Municipal Air Quality District issued a letter on January 21, 2016 recommending that jurisdictions move forward with the development of climate action plans to streamline GHG analysis and mitigation.

Finally, the State passed Senate Bill 379 in 2015 which requires jurisdictions to review and update the safety element of their general plans to address climate change adaptation and

resiliency. Specifically, the safety element needs to include goals, policies and implementation measures based on a vulnerability assessment which identifies the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts.

## **DISCUSSION**

Staff began work on the *Climate Action Plan – Communitywide Greenhouse Gas Reduction and Climate Change Adaptation* (Communitywide CAP) project with the County’s consultant, Ascent Environmental, Inc., in April 2016. The work will complete the second phase of the County's multi-phase Climate Action Plan process, and will focus on actionable, quantifiable measures for the unincorporated County. The Communitywide CAP, as is indicated in its full title, is broken into two components:

- 1) A greenhouse gas reduction plan, and
- 2) A climate change adaptation strategy.

Beyond the overarching sustainability and livability benefits to the entire County, a primary benefit for completing the Communitywide CAP is the streamlining of CEQA analysis. The Communitywide CAP will be a qualified GHG emission reduction plan in accordance with criteria identified in Section 15183.5 of the California Environmental Quality Act (CEQA) Guidelines. As such, new projects that are in compliance with the requirements of the Communitywide CAP will not be required to do a separate GHG analysis.

### **Greenhouse Gas Reduction**

As part of the work on the Communitywide CAP, staff is also updating portions of the Government Operations CAP. Specifically, staff is looking at the status of measures identified in the adopted document; additional measures the County has taken since 2012, or is taking; and proposing additional and/or revised measures for the future.

Staff is following a modified version of the five-step process which was developed by ICLEI-Local Governments for Sustainability, for use by local governments. The steps of the Climate Action Planning Process are:

- Step 1 Inventory GHG Emissions
- Step 2 Forecast Future Growth in Emissions
- Step 3 Develop Targets and Measures
- Step 4 Adopt Climate Action Plan
- Step 5 Monitor and Verify Results

### ***Inventory and Forecast***

The previous phases of the Climate Action Plan utilized a GHG emissions inventory for the baseline year of 2005. A new inventory for the baseline year of 2015 has been completed for both the unincorporated County (i.e. communitywide) and the County’s government operations. A copy of the 2015 Greenhouse Gas Emissions Inventory and Forecasts is included as Attachment 1. Please note that the 2005 and the 2015 inventories did not include consumption-based GHG emissions (known as Scope 3 emissions) which come from the extraction and production of purchased materials and fuels.

For the communitywide portion of the 2015 inventory, total emissions were 4,853,647 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e). The three sectors with the greatest emissions were: on-road vehicles, residential energy, and commercial/industrial energy use. These three sectors make up more than three-quarters of the unincorporated County's GHG emissions. For a breakdown of all communitywide sectors, see Figure 1 of Attachment 1.

For the County's government operations, total emissions for 2015 were 123,397 MTCO<sub>2</sub>e. The four largest sectors were: employee commute, vehicle fleet, building and facility energy, and airports (which included buildings and facilities, but not aircraft operations). These sectors account for 93 percent of the County government's GHG emissions. For a breakdown of all government operations sectors, see Figure 2 of Attachment 1.

The 2015 inventory was then used to forecast the County's future GHG emissions through 2050 based on data provided by the County and Sacramento Area Council of Governments (SACOG). The baseline forecast is called business-as-usual, or BAU, and does not assume that any reductions on the federal, State or local level will occur. Staff then subtracted legislative reductions from the BAU forecast based on known State and federal agency actions to get the legislative-adjusted BAU forecast. Examples of these actions include implementation of the 50-percent Renewable Portfolio Standard (RPS) by 2030 as directed by Senate Bill 350, updates to Building Energy Efficiency Standards in the California Building Code (Title 24, Part 6), and the California Advanced Clean Cars Program.

### ***Targets***

As previously discussed above in *Background*, the State has established GHG emissions reduction targets for 2020, 2030 and 2050. The County's current target for 2020 is 15-percent below 2005 levels as established in the Strategy and Framework Document. ARB is currently in the process of updating the Scoping Plan, also previously discussed above. The draft Scoping Plan is focusing on the 2030 and 2050 targets and proposes per-capita emissions goals which are consistent with the State's targets. The recommended GHG emissions reduction goals are:

- 6 MTCO<sub>2</sub>e per capita per year by 2030
- 2 MTCO<sub>2</sub>e per capita per year by 2050

For reference, emissions in the unincorporated County were estimated to be 8.4 MTCO<sub>2</sub>e per capita in 2015 (based on a population of 579,613 as of January 1, 2016). Therefore, emission reductions equivalent to 2.4 MTCO<sub>2</sub>e per capita would need to be achieved by 2030 in order to meet the 2030 target of 6 MTCO<sub>2</sub>e per capita. Staff continues to track the Scoping Plan update to ensure the Communitywide CAP uses the best, most up-to-date information available.

### ***Measures***

Staff is currently in the process of drafting, reviewing, and revising preliminary GHG reduction measures to ensure the County can meet the aggressive targets set by the State. The extent and the severity of the measures is based on the gap between the legislative-adjusted BAU forecast and the targets.

Staff is focusing on those sectors that have the largest contributions to GHG emissions, discussed above in *Inventory and Forecast*. The preliminary measures that have the greatest GHG reduction potential are:

#### Communitywide Measures

- Require new/replacement water heaters to be electric or other non-natural gas fuels.
- Require new construction to comply with CalGreen Tier 1 standards, and phase-in zero-net energy requirements for residential by 2020, and for non-residential by 2030.
- Require alterations to existing buildings to comply with CalGreen Tier 1 standards.
- Divert 80-percent of solid waste by 2030.

#### Government Operations Measures

- Require new construction to comply with CalGreen Tier 1 standards, and phase-in zero-net energy requirements by 2030.
- Convert fleet fuel from traditional liquefied natural gas (LNG) to renewable LNG.
- Convert fleet fuel from traditional diesel to renewable diesel.
- Create and staff an Employee Transportation Program to increase participation.

Once the preliminary GHG reduction measures are developed, and the GHG emissions reduction potential is estimated, the measures will go through the outreach process as discussed in *Public Outreach* below. They will then be refined further before being included in the draft Communitywide CAP along with a discussion of their environmental co-benefits, feasibility, and costs/benefits for Board consideration.

#### Climate Change Adaptation

Staff is following a nine-step Climate Adaptation Planning Process from the California Natural Resource Agency's California Adaptation Planning Guide. Steps 1-5 make up the vulnerability assessment, while Steps 6-9 make up the adaptation strategy development. The steps are:

- Step 1 Exposure: Identify the climate change effects a community will experience.
- Step 2 Sensitivity: Identify the key community structures, functions, and populations that are potentially susceptible to each climate change exposure.
- Step 3 Potential Impacts: Analyze how the climate change exposure will affect the community structures, functions, and populations (impacts).
- Step 4 Adaptive Capacity: Evaluate the community's current ability to address the projected impacts.
- Step 5 Risk and Onset: Adjust the impact assessment to account for uncertainty, timing, and adaptive capacity.
- Step 6 Prioritize Adaptive Needs: Based on the vulnerability assessment, prioritize the adaptive needs.
- Step 7 Identify Strategies: Identify strategies to address the highest priority adaptation needs.
- Step 8 Evaluate and Prioritize: Prioritize strategies based on the projected onset of the impact, projected cost, co-benefits, and other feasibility factors.
- Step 9 Phase and Implement: Develop an implementation plan that includes phasing of strategies and a monitoring system to assess effectiveness.

Following the steps of the Climate Adaptation Planning process will enable the County to update the Safety Element of the General Plan to meet the requirements of Senate Bill 379, as discussed above in *Background*.

### ***Vulnerability***

The Climate Change Vulnerability Assessment has been completed for the unincorporated County. A copy of the Climate Change Vulnerability Assessment is included as Attachment 2.

It analyzed the impacts of climate change on Sacramento County through the primary effects and the secondary consequences which could occur as a result of one, or a combination of the primary effects. These include:

#### Primary Effects

- Increased Temperature
- Changes in Precipitation Patterns
- Sea-Level Rise

#### Secondary Consequences

- Increased Frequency, Intensity, and Duration of Extreme Heat Days and Heat Waves/Events
- Loss of Snowpack and Decreased Water Supplies
- Increased Wildfire
- Increased Flooding

The Vulnerability Assessment analyzed how the climate change impacts, listed above, will affect County's structures, functions, and populations, and the County's current ability to address them. Finally, the Vulnerability Assessment ranked the climate change impacts based on the level of risk and the projected timeframe that impacts would occur. Risk is the likelihood or probability that a certain impact will occur.

### ***Adaptation***

Staff is currently in the process of drafting, reviewing, and revising preliminary adaptation measures. Some examples of the preliminary adaptation measures are:

#### Increased Temperature

- Protect Critical Infrastructure
- Use Cool Materials (i.e. roofs and pavement)
- Increase Shading
- Increase Cooling Centers in Disadvantaged Communities
- Multi-Lingual Outreach to Heat-Vulnerable Populations through Sacramento-Alert

#### Changes in Precipitation

- Certify Businesses for Water Conservation
- Increase the Use of Drought-Tolerant Landscaping
- Promote Groundwater Storage
- Explore Use of Recycled Water or Graywater

#### Increased Wildfires

- Update Maps with the California Department of Forestry & Fire Protection (CAL FIRE)
- Protect Critical Infrastructure
- Restrict Growth in Very-High Hazard Zones

- Multi-Lingual Outreach through Sacramento-Alert for Evacuation and Air Quality Warnings

#### Increased Flooding

- New/Improved Infrastructure
- Identify Stream Restoration Areas
- Increase Use of Pervious Pavement
- Multi-Lingual Outreach through Sacramento-Alert for Warnings and Evacuation Routes

#### Sea-Level Rise

- Update Maps
- Protect Critical Infrastructure
- Multi-Lingual Outreach through Sacramento-Alert

Input was received during the public workshops on the potential adaptation strategies, and work is in-progress to incorporate the comments, as appropriate. (Please see *Public Outreach*, below, for a summary of the ideas received during the second round of public workshops.) Once all comments are incorporated, and the adaptation measures completely developed, staff will present them to a high-level internal team of County leaders for further revisions before being included in the draft Communitywide CAP.

#### Disadvantaged Communities

Comments received during public outreach push for the Communitywide CAP to address equity for disadvantaged communities. Though there is no requirement for the Communitywide CAP to address disadvantaged communities, State legislation provides an incentive for its inclusion. Senate Bill 535 directed that 25-percent of the funds from the State's Cap-and-Trade program be used for projects that provide a benefit to disadvantaged communities and a minimum of 10-percent of the funds be used for projects within disadvantaged communities.

The Vulnerability Assessment uses, and the Communitywide CAP will use, the California Health Disadvantage Index (HDI) to identify disadvantaged communities in Sacramento County (see Figure 14 of Attachment 2). The HDI was developed by a collaboration of health departments and the Public Health Alliance. It uses 27 economic, social, environmental, and health indicators to show which areas are the most and disadvantaged. Some of the HDI indicators include: economic security, educational and employment opportunity, civic engagement, neighborhood quality, and premature mortality.

Other tools, such as CalEnviroScreen, are available to help define disadvantaged communities. However, CalEnviroScreen focuses more on pollution burden in existing communities, and may leave out communities that have lower levels of pollution burden yet still may be considered disadvantaged for other reasons.

#### Outreach

Public participation and input is encouraged to ensure the Communitywide CAP reflects the needs of the County. Staff prepared an outreach plan to receive public input at key milestones in

the development of the Communitywide CAP. The goals that guided the development of the outreach plan were:

- raise awareness,
- educate the public and other organizations,
- provide opportunities for input,
- provide opportunities to influence decision-making, and
- provide a public process that complies with CEQA

The outreach plan was refined based on initial public feedback. It includes meetings of an internal team of County-staff, focused meetings with stakeholders, and public workshops. In addition to the meetings, the Communitywide CAP has a webpage, a dedicated email address, a GovDelivery subscription list for email and text updates (with over 750 subscribers as of March 2017), and staff is utilizing the County's Public Information Office (PIO) to post updates to the County's social media (i.e. Facebook, Google+, Twitter, Nextdoor, and LinkedIn).

### ***Internal Team***

On May 10, 2016, staff met with members of staff from other departments to kick off the Communitywide CAP internally, and begin data collection for the 2015 inventory. Since the initial meeting, staff has worked with contacts from other departments to clarify data, and provide information on programs that have been implemented since 2012, programs that are currently being implemented, and planned future programs.

As the Communitywide CAP process transitions from collecting data to developing measures, staff will begin meeting with a new internal team of leaders. The new team will be composed of high-level staff that are able to make decisions for their respective department. They will represent those departments that will have responsibility for some aspect of the Communitywide CAP. The meetings will focus on discussing, revising, and finalizing measures in the draft Communitywide CAP.

### ***Stakeholders***

Staff invited a group of stakeholders to the County's Administration Center on August 24, 2016 to introduce the Communitywide CAP, present an overview of the process, and provide stakeholders with the opportunity to identify issues early in the process. Approximately 45 stakeholders attended the kick off. Based on feedback received during the kick off, staff will be holding focused stakeholder meetings once the measures have been drafted and are ready for review.

### ***Public Workshops***

The first round of public workshops kicked off the Communitywide CAP and presented the findings of the 2015 inventory. The workshops were held on November 15, 2016 in South Sacramento and on November 16, 2016 in North Highlands. Approximately 45 members of the public attended these workshops. Following the presentation there was an open discussion where input was received which focused on the following topics:

#### GHG Reductions and Climate Change Adaptation

- Energy – renewable utilities, solar roofs, net zero, weatherization
- Water – conservation, landscaping, drought



- Waste – zero waste, food waste
- Agriculture – local food production, consumption, loss of farmland
- Transportation – electric vehicles, bicycle facilities
- Growth – sprawl, urban limits
- Other – urban heat island, trees, cool roofs, health

#### Overall Process

- Education and outreach
- Low income/disadvantaged communities
- Policies, decision-making and conflicting priorities
- Short-term vs. long-term costs
- Consumption-based emissions and labeling products

The second round of public workshops focused on the County's vulnerability to climate change and how the County can adapt to these changes. The workshops were held on February 6, 2017 in the Arden Arcade community and on February 9, 2016 in Walnut Grove. Approximately 51 members of the public attended these workshops. At set points in the presentation, the discussion was opened up to the public to ask questions and provide input, which focused on the following topics:

#### Increased Temperatures

- Incentives for solar and solar canopies
- Passive cooling
- Reduce pavement and use cool and green roofs
- Tree planting and protection
- Increase community gardens
- Health and vulnerable populations

#### Changes in Precipitation / Loss of Snowpack / Sea-Level Rise

- Capture excess water through groundwater recharge, reservoirs/storage and desilting
- Turf replacement and educate on best plants to use
- Permeable pavement
- Delta saltwater intrusion and groundwater levels
- Crop diversity

#### Increased Wildfires

- Erosion, mudslide and water quality

Following the workshop with the Board of Supervisors, which will allow additional opportunities for public input, staff is planning on holding three more public workshops. These workshops will focus on the proposed GHG reduction measures and the draft Communitywide CAP document. Finally, through the CEQA process, the public will have additional opportunities to review and comment on the environmental analysis for the draft Communitywide CAP.

**MEASURES/EVALUATION**

Work on the Communitywide CAP is pursuant to the 2030 Sacramento County General Plan. The work is guided by several State laws, plans, and court rulings. A primary benefit for completing the Communitywide CAP will be the streamlining of CEQA analysis for new projects.

**FINANCIAL ANALYSIS**

Staff began working with a consultant, Ascent Environmental, Inc., in April 2016 to prepare the Communitywide CAP document and conduct public outreach. The consultant’s work is estimated to cost \$267,060 over a period of two years. Staff work is estimated to cost \$431,300, over the same period.

Most of the work performed by both staff and the consultant is funded by Long Range Planning fees. Established in County Ordinance Section 16.90.030(R), the Long Range Planning fee is a fee of seven percent of the total permit fee (building permit fee and plan review fee) that is charged to all permits that require a review by Planning and Environmental Review. Approximately \$67,000 of consultant work in FY2016-17 is Net County Cost.

Both staff and consultant costs have been included in the Fiscal Year 2016-17 Adopted Budget, and will be included in the Fiscal Year 2017-18 Recommended Budget. As of April 14, 2017, the County has spent \$366,040 on this project.

Respectfully submitted,

RECOMMENDED APPROVAL:

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LEIGHANN MOFFITT, Planning Director  
Office of Planning and Environmental Review

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NAVDEEP S. GILL  
County Executive

Attachments:

ATT 1 – 2015 Greenhouse Gas Emissions Inventory and Forecasts

ATT 2 – Climate Change Vulnerability Assessment